XIO3

GCACE

Garden City Atari Computer Enthusiasts
1003 Amphion St. Victoria, B.C. Canada V8S 4G2

MEETING CHANGE!

As announced in the last newsletter, our meetings in September, October and Novem ber will be held in the Nellie McClung branch of the library at 3950 Cedar Hill Rd. After the club had one meeting there, the executive decided that because it was a better facility and no further to travel for most members, we should move there permanently. It was determined that the room rental was the same, so the change was made. For the remainder of 1994 and 1995, our meetings will be at the Nellie McClung branch. One improvement to be immediately noticed will be the availability of tea and coffee during meetings.

ATARI® NEWS AND RUMOURS

by Rowland Grant

Atari Corp has reported its financial results for the second quarter ending June 30, 1994. Net sales for the period April to June were $8.2 million. This is an improvement over last year's figure of $5.7 million. Of course, Atari had overhead expenses, mostly in development and advertising. These led to an operating loss of $3.9 million compared to a loss of $4 million last year. None of this was unexpected. It is rather hard to make an overall profit when you are launching a new product. Of greater interest, perhaps, is the net sales figure of $16.35 million for the first six months of 1994. Sam Tramiel remarked that about 65 thousand Jaguar consoles had been sold. Guessing that the wholesale price of the Jaguar is a bit less than $200, the Jaguar sales would add up to about $13 million. Not all of that would be in 1994, but it does seem reasonable to assume that the Jaguar accounted for about three quarters of Atari's sales this year so far. The bottom line in June looked even better due to a gain in currency exchange of $0.8 million and the lawsuit settlement of $2.5million. Atari is still bleeding at a rate of about $8 million a year, but that is about half the loss of last year. Operations have been cut back to a minimum and have been focused on the Jaguar.

There is nothing more to do but deliver products and increase sales. Since the manufacturing and distribution costs of the Jaguar are not reported, my estimates are a stab in the dark. However, assuming that Atari makes a net profit of at least $50 per Jaguar, and assuming an overhead this year of around $23 million, Atari would have to sell about 350 thousand Jaguars (as 80 percent of net sales) in 1994 to break even. Of course, in time the main income should come from the sale of games rather than game machines. But Atari may be some way off from that stage. Atari has a significant part of its operations still in Europe. The warehousing has been consolidated in one location on tidewater in Holland. The head office of Atari Europe is in Britain where there is a staff of 15. There are a handful of employees in key countries. For instance Atari Germany has four staff, Atari UK has six. Most of Atari's current European sales are in computers. According

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G.C.A.C.E. EXECUTIVE

President: Gordon Hooper	475-0857
Vice President: John Picken	598-2386
Secretary: Rowland Grant	598-3661
Treasurer: John Towler	382-5083
Editor: Gordon Hooper	475-0857
ST Librarian: Ted Skrecky	598-6173
8-Bit Librarian George Rose	652-0572
BBS Sysop: Bob nex	642-6358
Director: Mark Ericson	
Director: Steven Lemmen	595-7811
Director: Ron DePol	479-6807

CREDITS

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MEMBERSHIP

Membership dues are $25 per family per year. Membership includes a subscription to this newsletter, access to over 300 8-bit public domain disks and 140 ST disks and increased time and upload/download ratio on the club BBS, Pothole. It can be reached by modem at (604) 642-6795.

MEETINGS

Meetings will be held in the Nellie McClung branch of the Library at 3950 Cedar Hill Road on the third Thursday of the month for August, September, October and November of 1994. In January of 1995, meetings will return to our original room at the Saanich-Victoria branch of the Library at 3500 Blanshard Street. All meeetings are at 7 pm. There is no meeting in the month of December. Copying of club ST public domain disks is done at meetings. For 8-bit copying, please phone the club 8-bit librarian.

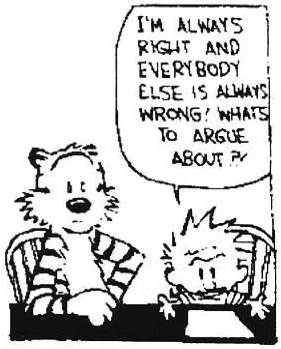
EDITORIAL

Joining a user group gives you access to a newsletter, public domain software, a club BBS and, most importantly, fellow members knowledge. I say the fellow members are most important because you can usually find the answer to any computing question whether it be hardware or software related by asking a member. The trick is to know who to ask. I would be still using a pen if I didn't have access to people who are experts with printers. Adding a new printer to your setup seems to cause more grief than anything else. Many people seem to join GCACE and come to a few meetings until they either get the software they want or have learned what they need to run their own particular hardware and software. They then seem to lose contact with the club, except for the newsletter. Because of this, I thought it was time to make an effort to help some of these people, hence this list. As president of the club, people seem to think I know the answers to all their questions. T'ain't so, people. I'm as big or bigger an ignoramus about computers as you, except for a couple of software programs I use frequently. Whenever I get a new piece of software or hardware, I burn up the telephone lines until I've learned how to use them. The secret is I know who to ask because they are the experts in any given area. Following is a list of members who know what they are talking about. I have contacted them all and they are more than willing to give you assistance over the phone. Kindly try to limit your phone calls to reasonable hours such as between 10 am and 8 pm and don't be shy. They really are pleased to give members assistance. One number to keep in mind is mine (Gord, see below), as I can direct you to the correct person. I don't mind receiving phone calls from members at all, so feel free to call.

General Information:	Gord Hooper	475-0857
8-Bit:	John Picken	598-2386
	Rowland Grant	598-3661
	Bob Nex	642-6358
	Bob Etheridge	479-7271
Word Processing:	Rowland Grant	See above.
	John Picken	See above.
Disk Compression:	Ted Skrecky	598-6173
Printers:	John Picken	See above.
Desktop Publishing:	Chris Sherwood	385-7528
	Gord Hooper	See above.
Telecommunication:	Bob Nex	See above.
	Morgan Stewart	595-6016
Programming:	Rowland Grant	See above.
	John Picken	See above.
MIDI:	John Towler	382-5083
Hardware, Repairs & Sales:	Steve Lemmen	595-7811
Games:	Ted Skrecky	See above.

PEEKing Around

by Gordon F. Hooper



... Welcome to new member JACK BAKUS from Victoria, recently arrived from Ottawa. Also welcome KRZYSZTOF KJ SZYCHOWSKI, a corresponding member who lives on Saltspring Island ... MARK ERICKSON, our director who has recently moved to Courtney, has been on the Pothole BBS and assures me he is putting the arm on all Atari computer owners in the area to join our club ... DOUG SKRECKY, our member in Vancouver, continues to clip funny things from newspapers and send them to Victoria. One clipping he sent over recently is so hilarious it must have those sycophant politicians in Ottawa laughing so hard they can't see straight. The following is quoted from *Equity* magazine. "If every province and territory put in $442 million per month to retire the existing federal and provincial debts, at the end of 100 years the debt will not be reduced by even one cent." Now I am mathematically illiterate, but with the help of my trusty calculator I find that would amount to 5.3 BILLION dollars a month simply to pay off interest on the existing debt. You might remember that the present prime minister in Ottawa estimates he will have to borrow another 39.5 billion to run this country in 1994. That may not matter to you and me, who received all the benefits from the money borrowed, but somebodies children and grandchildren are going to have to pay off that debt eventually ... I just heard some good news (that's a change for this column) from MIKE and TARA HARRISON recently. Tara has received her degree from U Vic and will start teaching at Cathedral School here in Victoria this September. Mike is still recovering from his recent health problems, but he has also got a part-time job at Cathedral School as a youth worker. He will look after and coordinate teen activities for the kids at the school. Mike has also taken on the responsibility of being the sysop of All Christian Telecommunication System which is hooked into the Anglinet. 339-7295 is the number of the BBS. He tells me he is presently trying to link Vancouver Island Christian BBS's into the larger Anglinet. Mike has assured me when he has some income, part of the outgo will be to GCACE to renew his membership ... JOHN TOWLER, our treasurer, has recently received a promotion at his job with the Liquor Control Board. John is now working at the Quadra Street store. His job now entails some shift work, so unfortunately he will miss the occasional meeting. RON THIBODEAU has gone from the Quadra store to Borden Street. It's a good thing I need constant renewals of my vodka supply or I'd never know what was happening at the liquor stores. John also tells me he will spend September in Italy. But don't worry. He'll turn over the books before he goes ...Speaking of vodka, JOHN PICKEN will have to cut down on his beer ration to enable him to buy me a bottle. There was a gentlemanly wager on the outcome of a recent B.C. Lions / Ottawa Rough Riders game. Ottawa lost, as it always does in political happenings and football games ... TED SCOTT, one of our corresponding members from Qualicum Beach was down in Victoria recently and called in at my house to say hello. He brought a 600XL, which he was kind enough to donate to the club. Any club member is welcome to have this system ... Be sure and phone GORD at 475 0857 to report any club members engaging in activities they don't want you and me to know about, and next month have a **HAPPY HALLOWEEN.** Thanks to TED SKRECKY for downloading that PostCrypt font from the Internet. Ted has also released version 3.3 of the ST public domain catalogue which now contains 153 disks. That represents a lot of work, so many thanks again to the CyberCataloguer ...

XIOWhat?

by John Picken

With this issue, XIO3 reverts to its original masthead. Gord took one of the old issues, scanned the masthead and ran the resultant image into Calamus for touch up and use.

When I first became editor in 1987, the GCACE newsletter was named, with great originality, exactly that. Figuring we needed an original name, I democratically (read "autocratically") decided on "XIO3". As we were, at the time, an 8-bit only club with 130 members, it made sense to pick a name relevant to the Atari-8.

O.K. so what's it mean? Well, XIO is an 8-bit Atari BASIC keyword standing for eXtended Input/Output. Essentially, it allows the user to access a pile of DOS commands not normally supported by BASIC. XIO 3 is the command to open a channel, the first requirement for any communication. It therefore seemed an appropriate name for our newsletter.

Taking artistic licence, I dropped the space before the "3" and sat down with drafting pens to design a masthead. Inspired by a font I saw in a magazine advertisment (and some beer in my brain), I came up with a double height, double width version of the final product. This I passed on to Bob Etheridge who "tested" one of the Xerox machines he works on by producing several 50% reduced copies for us.

For the remainder of the two years I edited XIO3, it was a "cut and paste" deal. I'd edit everything on screen and then take a disk over to Rowland's for printing (I had only a 1027). For the front page, I'd take one of Bob's copies, cut out the masthead and glue stick it on. Titles and advertisements were similarly handled. "White-out" around the edges of the pasted portions completed the job. Until we learned more about PaperClip and printers, it was not unusual for

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to Bob Gleadow, the general manager, Falcon sales are steady and Falcons are still in production in Taiwan. Old stocks of ST's, rounded up on consolidation, are still selling. I presume Atari Europe is earning its keep. However they are awaiting the arrival of the Jaguar in quantity. Europe is a market at least as large as North America and if Atari is successful with the Jaguar in the U.S. then the European market could be mostly profit, just as it was in the past with ST computers.

In preparation for an international launch of the Jaguar, Atari has engaged Edelman Public Relations Worldwide. This is said to be the sixth largest PR firm in the world. As soon as they were engaged, there was a press release saying that ...a majority of the 300 thousand piece 1994 production of the Jaguar will be manufactured by IBM.... Also they announced that Atari has signed a deal allowing Time Warner Interactive to use Jaguar technology in its arcade units and TWI will allow Atari to use its arcade game titles in the Jaguar. My reaction was, so what else is new? It looks to me like a bit of news churning. But Atari has been busy with really new arrangements too. I noticed that Atari has made Beamscope Electronic Entertainment the wholesale distributor for the Jaguar in Canada. Beamscope sells to over 3000 accounts (5000 store fronts) in Canada. Beamscope has announced that it will become the exclusive supplier of its whole range of products to the 850 Radio Shack stores in Canada. Possibly we could be seeing the Jaguar at Radio Shack. There are rumours that Sears has agreed to carry the Jaguar too. This activity seems to have settled the stock prices. Atari shares have edged up from below $4 to above $5 with large volume on the upswing. I noticed that 3DO shares have been firming up too. Contrary to some reports, the market has not written off either company.

More big names in software production have signed up for the Jaguar. Among them are 20th Century Fox Interactive, JVC Industries, Time Warner Interactive and Electro Brain Corp. They haven't written Atari off either. In order to keep its name in front of the potential market, Atari has been taking part in Supertour '94. This is a combined effort of Atari, Electronic Gaming Monthly, Hero Illustrated Comics and possibly others. The exhibits are touring shopping malls around the country. Atari is showing some of its unfinished games in certain exhibits just as it did at the CES. Atari is selling Jaguar watches, caps and t-shirts on the tour. These exhibits are low budget advertising. Atari can't afford to match Nintendo or Sega in that arena. Atari reported that it has spent $5 million on advertising over the last ten months. It is prepared to spend up to $30 million for the 1994 holiday season.

But it won't be advertising that sells the Jaguar. It will be games. This is the cliff hanger. Wolfenstein 3D ($59.95 US) has been released and has received good reviews. Not the greatest game but one of the better releases for the Jaguar. At the same time, Telegames have released Brutal Sports Football ($69.95 US). I have reports that this game does not do the Jaguar justice, and while it is a good game, it could have worked as well on any other machine. After Wolfenstein there is nothing. All Atari's other releases have been delayed to September at the earliest. Back in July, Atari decided to delay the release of Kasumi Ninja, Club Drive and Checkered Flag. These are being reworked to fit the new 4 MB cartridges with improved video, sound and game play. Alien vs. Predator is being groomed as the flag carrier of Jaguar games. It is being reworked to greater perfection. It has been continually delayed. However, if A vs P is attractive, and is packed with the Jaguar consoles later this year, then Atari might be justified in blowing that thirty million of mostly borrowed money in one big push.

Of course there have to be a lot of new games to go in with A vs P. Atari is hoping to have at least 15 of its own and maybe an equal number from other developers. After the success of Tempest 2000, Jeff Minter has been contracted to continue these adaptations of old classics. The next game will be Defender 2000. There were rumours that Star Raiders 2000 was in the works, but it seems that this title has been dropped. A lot of outside developers prefer to use CD ROM disks. Some interactive games have not worked too well with this medium, it is slow compared to cartridges. But techniques are being developed to make better use of CD's and many future Atari games may turn up on disk. Atari is now prepared to ship its CD ROM drive. The drive comes with the Virtual Light Machine cartridge. This turns digital sound on any CD into a video display. So even if there are no CD games, the drive will be useful for something. However at least five CD titles are now in development for the Jaguar. These are Battlemorph, Jack Nicklaus Cyber Golf, Highlander, Creature Shock and Demolition Man. The golf game uses true colour images of Murfield golf course and needs the capacity of the CD.

The MPEG cartridge will be available with the Jaguar CD drive for $150. This allows full motion video displays through the Jaguar. The Catbox interface for the Jaguar allows almost any connection, svideo, composite, analog RGB, RS232,

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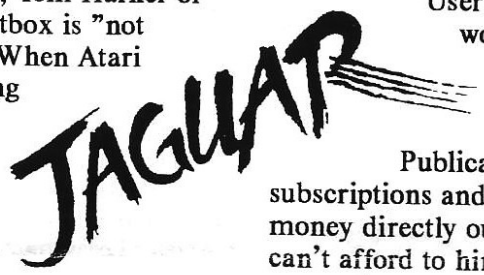
comlynx, stereo audio and dual headphones ($49.95). Now there is Catbox+ which adds stereo headphone amplification and a differential pair network (?) for $69.95. Catbox is (or will be) made by ICD. However, Tom Harker of ICD says that Catbox is "not quite" available. When Atari releases its driving games, users can use Thrustmaster steering wheel and pedals ($139) to add to the fun. Off the topic, Argonne National Laboratories has been looking at alternatives to computers to provide easier access to computer generated information. One of the devices being evaluated by Argonne is the Jaguar. Also I have heard that someone is linking Jaguar consoles to exercising machines. Virtual exercise? Not quite! But one day you could get on a bicycle machine and see the scenery and hear the crowds on the Tour de France championships. Or you could be part of an Oxford vs Cambridge rowing match while you are using a rowing machine.



The world of Atari computers is shrinking. Current Notes, the oldest surviving magazine devoted to Atari computer users is going bimonthly. In his editorial, Joe Waters noted that CN lost ten percent of its subscribers from 1990 to 1992. In the next two years subscriptions dropped by a third. Worst of all advertisements are down. Of the 140 advertisers mentioned in CN only a third advertised. Now, CN is run by Joe Waters and his wife in their spare time. When revenues were good, they could afford to hire help. Getting out a monthly publication was not too difficult then. With revenues down, Joe could decide to quit or slow publication to meet his own time and energy. Joe decided to keep going at a slower pace. Subscribers owe him thanks. A similar situation has hit New Atari User in Britain, but worse. New Atari User is part of Les Ellingham's business, Page 6 Publications. The decline in subscriptions and advertising takes money directly out of his pocket. He can't afford to hire help either. Les is attempting to subsidise New Atari User through his Atari software mail order operations. But he hasn't the resources or personal energy to keep going indefinitely. Due to emergencies and illness, Les has had to suspend publication of New Atari User temporarily. Even the large publishing houses like Europress in Britain are consolidating Atari magazines. Europress published ST World, ST Action and ST User, and later bought ST Review. St World stopped about three years ago, last year ST Action was folded into ST User. Now ST User has been discontinued and some of its staff have been transferred to ST Review. So there are two glossy ST magazines left in Britain, ST Format and ST Review. Their total circulation is probably little more than 50 thousand. By comparison magazines for the doomed Amiga have a combined British circulation of 600 thousand. The publishers also have magazines for other computers that are doing much better. They won't want to hang on to Atari to the bitter end. The general computer publications market is not all that healthy either. There is lots of competition between big publishers. Smaller publications can't hold on. Compute! magazine almost went under a few years ago. Then it was saved by OMNI. However, it has now been sold to Ziff-Davis for the value of its subscriber list. The current issue will be its last. At the same time, Processor Direct, the Falcon/ST magazine has decided to try a second issue and possibly even continue as a bimonthly. Perhaps where there's hope there's life.

Tom Harker of ICD has reported that his company is shrinking. ICD is a major supplier to both the ST and Amiga markets. Some of its software hasn't been updated for awhile. They are closing out their host adapter boards but other hardware such as Link will continue to be produced. The three versions of hard drive software, ADSCSI, Link and Pro, are still being improved. Tom is looking elsewhere. He has gone into partnership with 4play Game Software (no I didn't make that up). They are developing the title Star Battle, a first person perspective game. They must be using a Falcon or at least a TT for some of the programming, because according to Tom they are using Inshape for the graphics. Another Atari supporter, Codehead Technologies, has reverted to part time operation. The principal owners, Charles Johnson and John Eidsvoog have both found other employment (in the entertainment industry). They have discharged their last employee who managed the office. Codehead products and updates will still be available. The company has not gone out of business. John Eidsvoog said that the absence of anyone in the office has not affected sales "as there has been none to speak of anyway." Codehead's Warp Nine screen accelerator is probably the top selling Atari product. But Charles Johnson says that "the market has shrunk to the point where even that status isn't enough to turn a profit". Charles says that upgrading Warp Nine is not out of the question, but he has no time to work on it at the moment. There has been no news from David Small for months. But

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Basic And All That (Part 4)

by Rowland Grant

I began this series of articles on the BASIC programming language some time ago as a memorial to John Kemeny, one of the originators of the language who died in December 1992. BASIC in general and its implementation on Atari 8-bit computers was covered in the first two parts. In part three I discussed BASIC implemented on Atari ST computers and covered Atari's ST BASIC, GFA BASIC and True BASIC. I will attempt to complete the survey in this article.

The failure of Atari to create an acceptable version of ST BASIC encouraged quite a number of software developers to make up for the lack. I am aware of twelve versions of BASIC for the ST, and there are probably others hiding somewhere. There was LDW BASIC, a compiler that could handle ST BASIC code. Apparently the resulting program did not run terribly fast for being compiled, but it was a great improvement nevertheless. There is Real BASIC, an interpreter that runs programs as fast as compiled code (at least that is what the ads say). Then there is the First BASIC interpreter. It is a modern version of BASIC that is sometimes packaged with ST's sold in Britain. BASIC code in First BASIC syntax can be compiled by Power BASIC. I have promotional literature for Advan BASIC ST, but I don't know if it was actually released. In addition there are Softworks BASIC, Fast BASIC, STOS BASIC and HiSoft BASIC. I have copies of these last four, and I will review them briefly.

Softworks BASIC was ported over from other computers to the Atari ST in 1986. This BASIC consists of two major files: a compiler that produces tokenized code from ASCII text and a runtime module that runs the tokenized programs. One cannot create stand-alone files with Softworks BASIC, but commercial software could be produced if a disk is dedicated to its programs. The general command (keyword) set is rather spartan. It lacks the many structured programming devices that are found in GFA BASIC or True BASIC. String variables can be handled in the usual Microsoft manner or by a rather powerful alternate system. However the most distinctive feature is the MAP statement which allows the creation of elaborate data structures of almost any kind. There are no special commands that make use of the ST's resources. However, through the TOOLBOX statement, one can access all 280 (or so) of the special TOS-GEM routines (assuming that you know all about GEM). Softworks BASIC does not provide an editor, but any ASCII text editor will do. The tokenized code runs reasonably rapidly. Softworks BASIC is rather limited on the ST except for GEM experts, and it doesn't create stand-alone files. The next BASIC has none of these limitations.

STOS BASIC is marketed as "STOS, The Game Creator". Hundreds of fine games have been created using STOS. Also, tutorial programs, and applications such as a word processor, a data base and even a BBS terminal have been created using STOS. While STOS is optimized for programming games, among its 340 keywords is a fairly complete set of standard BASIC commands. Therefore, many programs written for ST BASIC can run under STOS. To facilitate the programming of games and the like, STOS has extensive commands for manipulating sprites, the screen, general graphics, mouse and joystick, sound, text, menus. Unlike ST BASIC, STOS does not use the GEM environment. Rather, STOS has its own programming environment that can be expanded through the use of accessory files. Supplied with STOS is a sprite designer, editor and animator accessory, a music and sound envelope editor accessory, plus a number of utility accessories. In addition, some major accessories are available separately. These are a compiler, a sound sampler/editor and a 3D graphics package. Up to four accessories can be available at one time. They can be called up from within the STOS editor. Memory can be set aside for STOS program data. This can be data for sprites, Degas or Neochrome format screens, sound, 3D vectors, machine code and so on. A STOS program can be run under the editor or it can be saved as a stand-alone .PRG file and then it is available to be run from the GEM desktop.

STOS works best with a colour monitor. Like ST BASIC, STOS requires the use of line numbers. The editor itself is not a scrolling text editor. Rather it is a simple screen editor which can be used in much the same way as the Atari (8-bit) BASIC editor. In addition there is an extensive set of debugging commands. If accessories are not being used, the editor can switch between four different STOS programs. While I have not made much use of STOS, I enjoyed trying the examples given in the excellent manual. I found that STOS provides fairly easy control over graphics, animation, sound and even drop-down menus. The STOS interpreter runs code at a respectable speed, but the code can be compiled to run almost ten times as fast. STOS is an excellent BASIC for the general and casual user.

Another interesting version is Fast BASIC. This is a BASIC interpreter supplied in a ROM cartridge. A runtime program is supplied so that Fast BASIC programs can be used without the cartridge. Another utility will turn Fast BASIC program files into stand-alone .PRG or .ACC files. Memory is carefully conserved by this BASIC. Unless you specify otherwise, only 32K of RAM is set aside for each program. However, the memory is segmented to hold up to ten programs at one time. Obviously this design would make the most of the resources of a 520ST. Fast BASIC provides a good text editor operating in a GEM window with the usual drop-down menus. A number of debugging tools are also provided. The programs run in a separate window. There is also an immediate mode window if you need it. Fast BASIC code requires no line numbers. It employs most of the modern BASIC control structures, procedures and functions. Variable indirection (pointers) is available and its use is recommended since the PEEK and POKE keywords operate in supervisor (crash easy) mode. Fast BASIC is quite extensive. There are more than 350 keywords including a fairly complete control of the GEM AES functions. If that isn't enough, there is a built-in assembler to handle in-line assembly language sub-routines. Fast BASIC interpreted code is comparable in speed to GFA BASIC 3.X or True BASIC.

Finally, there is HiSoft BASIC. This is currently the only version of BASIC that is still in development for Atari computers. HiSoft BASIC version 2.10 will make use of the features of all Atari ST/TT computers including the Falcon. This is a compiled BASIC, similar to Microsoft's Quick BASIC. I don't have a copy of the latest version or a manual. My copy of HiSoft BASIC (version 1.3) is from a ST Review magazine disk published two years ago. The editor and compiler operate together through GEM windows. The editor is excellent and the programming environment is easy to use. The compiled code runs about as fast as compiled GFA BASIC 2.0. I expect that programs created by the latest version of HiSoft BASIC would run much faster.

As usual I have tested all of these versions of BASIC by programming and running the algorithm for sorting prime numbers known as the Sieve of Eratosthenes. This code is quite rudimentary, but still it had to be adapted to each version of BASIC before it would run properly. While this adaptation was not difficult in most cases, it is an example of how incompatible the various versions of BASIC have become. A comparison of the results, for what it is worth, is given in the accompanying table.

Thirty years ago, John Kemeny and Thomas Kurtz created BASIC to enable non-specialists to program computers. Their innovation contributed to the early success of micro computers. Indeed it was a popular version of BASIC that launched Microsoft. Ten years ago some effort was made to introduce a standard for BASIC. True BASIC was introduced by Kemeny and Kurtz as an example of this standard. Unfortunately efforts at standardization have been ignored by most software publishers. So if you wish to program in BASIC on the ST, or any computer for that matter, it is best to pick a good version and stick with it. Most versions of BASIC are no longer supported on the ST, although GFA BASIC 3.6 and STOS may be available from some vendors. GFA BASIC 2.0 interpreter can be obtained from public domain collections including our club library. I understand that there is also a public domain compiler for GFA BASIC 2.0 code. If you have a Falcon computer, HiSoft BASIC 2.10 is perhaps the only choice.

TIME IN SECONDS TO RUN 10 PASSES OF THE SIEVE OF ERATOSTHENES

Basic Interpreters		Compiled Code	
ST BASIC	1566	STOS BASIC	45
ST BASIC MCC	798	HiSoft BASIC 1.3	23
Softworks BASIC	392	GFA BASIC 2.0	20
STOS BASIC	382	GFA BASIC 3.X	10
GFA BASIC 2.0	283		
GFA BASIC 3.X	179		
Fast BASIC	179		
True BASIC	158		

8-Bit and the DeskJet

by John Picken

While I'll be referring to an 8-bit Atari in this article, most of what will be covered is applicable to any computer that can be hooked up to a printer. I'm using an 8-bit for two reasons: First, it's more difficult to use a Hewlett-Packard DeskJet with the 8-bit than it is with the ST. So, if I can do it, you people with ST's should have very few problems. And second, I don't have an ST, so I'm not about to try to write about something with which I'm unfamiliar.

Using the DeskJet with the Atari-8 initially requires a fair bit of reading and experimenting. Primarily this is because most 8-bit word and text processing programs were written before the DeskJet existed and assume the standard printer control language is Epson. H-P's printer control language is 99% different than anything you might be used to with an Epson or IBM compatible printer. About the only similarity is that most control sequences begin with the "Escape" character (ASCII 27).

This means you're going to have to design your own printer driver, if possible, for whatever word processor you use. The reason I added the "if possible" is that your word processor may not reserve enough space for the control sequences required by the HP as the program was designed for Epsons which normally use a maximum of three bytes for a sequence. THE HP language is far more verbose.

Secondly, HP uses a completely different method to print graphics. Epsons and IBM's print graphics using an 8-pin dot column defined by one byte per column as the print head moves across the page. 24-pin printers work similarly except that you've got three 8-pin columns, each with a slight vertical offset from the other two. In either case, orientation is vertical. The HP defines graphics in terms of raster scan lines like a television or a laser printer, similar to the way your computer draws the screen.

This means any program which uses printer graphics will not work with the DeskJet. You will have to forgo use of things like PrintShop, DaisyDot and all the various screen dump programs currently available. This, in all likelihood, applies to much ST software as well; especially public domain stuff. This is really not a major loss when you consider the true letter-quality print available with the DeskJet. You give up dumb little icons in return for laser quality.

If you want graphics on the 8-bit, hang on to your dot matrix printer and print your page in two passes, the first to do the graphics using the old printer. Then remove the tractor feed strips and do your text on the HP. Getting the spacing right will initially take some experimentation. If your 9-pin printer has an accurate friction feed, you can get away with single sheets, but most older 9-pin jobs are not accurate enough for this so you're usually better off with tractor feed.

The biggest difficulty I faced in setting up Gord's 8-bit DeskJet driver was that the printer manual did not contain enough information. It contains all the commands, but the descriptions are very sketchy, and examples are few and poor. So, after studying it for about 30 hours, Gord and I took a shot at trying the HP with PaperClip. The results were disastrous. Gord dug into his wallet (fighting off the moths while attempting to conceal the square foil packets) and sent more bucks off to HP for the technical reference manual. It arrived a few weeks later and the first thing I saw in it was the statement that it is insufficient as a programming reference manual. Of course, the fact that was no mention of a programming reference manual in the unpriced list of extras, wasn't addressed.

Anyway, the tech ref manual revealed the one crucial point that keeps you from learning how to program the HP from the printer manual and experimentation alone; It uses straight ASCII for numbers. When you want to send an Epson or IBM a value of ten in a control sequence, you enter the value as an ASCII i.e. Control-J. With the HP, on the other hand, you enter it as the ASCII text string "one zero". For example, to select characters per inch, you enter Escape, left parenthesis, lower case s, the digits for the cpi, followed by upper case H (for horizontal). Where this gets even more complex is that you can enter as many as two digits, a decimal point and two more digits.

The final point, that was not mentioned, was how the printer rounds off. Like all printers, it has its own mind. The HP always rounds up. To access its compressed mode which is 16 and 2/3 characters per inch, you can use the digits one and six in the control sequence. If you want, you can follow this with a decimal point and the digits six and seven. But if you try to specify 17 cpi, a value closer to 16 and 2/3 than 16, the printer will give you 20 cpi.

After getting through all the forgoing (including beating off the newly liberated moths), I came up with a printer driver for PaperClip and the HP that worked (almost). I took it over to Gord's and we spent the evening experimenting. Not surprisingly, each try came up with another error. Then we polished off the sixth brew and everything came together.

What we got was a printer driver that supports all three internal fonts, italics, underlining, double width and bold print along with IBM style character graphics. The manual suggested that letter quality be selected by the top panel switch and this seemed to make sense so we left it that way.

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The one feature we didn't explore was the printer's "landscape" mode. If you're unfamiliar with this, take a sheet of 8 1/2 by 11 paper and hold it in front of you as you would to read a letter. What you're looking at is called "portrait" mode. Turn the sheet 90 degrees and you're looking at "landscape" mode. The great 9-pin printer I bought from Michael Davies at the Swap and Shop meeting allows the same thing as the carriage is wide enough to take paper sideways. The HP, however, keeps the paper the same way and manipulates the data internally.

The printer and PaperClip were demo'ed at a meeting in the printer's best internal font, which is proportional. Apart from the quality, the thing members noticed was the quiet operation.

If you're a diehard 8-bitter, I don't think I'd recommend the HP. It's an excellent machine and Hewlett-Packard, from calculators on up, has always built strong, durable equipment. But you either have to forgo use of most of your graphics software or keep a second printer. You can buy an Epson emulation cartridge to plug into the HP, but I think Gord said something about $296. For that you can buy a brand new 24-pin letter quality printer. So why bother? I think 8-bitters would be better advised to purchase a Canon BubbleJet, which has a built in Epson mode, or to investigate the new LED printers which are apparently cheaper to run than laser printers and produce equivalent quality.

TextPRO 5.20X

by John Picken

On Monday, the 8th of August, I received TextPRO 5.20X from Ronnie Riche. TP just keeps getting better and more powerful.

When I originally sent in my registration fee for TP, Ronnie must have misplaced my address and I heard nothing from him for over a year. Then Dale Wooster, president of NWPAC in Phoenix, mentioned, on the USF net, that he was in regular contact with Ronnie. A request to Dale to mention me resulted in a disk containing TP 4.54 from Ronnie within a week or so. This was followed shortly by another disk with TP 5.12x and (important to me anyway) source code.

The latest TP version offers more improvements and the docs say that a final version is yet to come. I state flatly that there is no better all around text editor for the Atari 8-bit. I use it for letters, off-line message reading and composition of replies, programming, and just about everything else. There are word processors available with more advanced print features (PaperClip is a good example) but none offer the power and flexibility of the TP editor. You can edit ANYTHING with TP; with knowledge, you can even use it to modify machine language files.

With version 5, Ronnie added a feature called, appropriately, "Add Ins". These are machine language routines which load into the macro buffer to perform various customized tasks. How would you like to capture a text file full of ASCII end-of-lines (Control-M Control-J combinations), load it into a word processor and convert the whole thing to ATASCII in about a second? With TP you can.

TextPRO is shareware but it's not expensive. Ronnie offers two different shareware disks. The full package, including assembly language source code is $40 US. But, if you can live without the source code, he offers a "distribution" disk for only $15. He is not really making money on this when you consider what it costs him in dollars and time to make up and mail out the disks. I estimate the three he has sent me so far have cost him anywhere from six to eight dollars in disks, mailers and postage alone. Add to this the many years of effort he has put into TP and you can figure he's making well under 25 cents an hour. In other words, TP is a labour of love.

For those who like printed documentation, Dale Wooster is working on a complete hard copy set of TP instructions. These will be offered in two forms: with and without a binder or cover. The projected price was $10 (unbound).

If you use TP, I urge you to send Ronnie, at least, the $15 for the distribution disk. If you don't use it, I urge you to try it. TP is, after DOS, the most important and useful program you can have for your 8-bit Atari. You can register with:

Ronald Riche First Systems Software
1700 Aycock St. Arabie, LA USA
70032

When we hear from Dale (GCACE exchanges letters and newsletters with NWPAC), we'll let you know how to acquire the printed documentation.

GCACE Meetings

by Rowland Grant

The Club executive committee is responsible for arranging the program for our monthly general meetings. Our president, Gordon Hooper tries to find volunteers who will demonstrate Atari hardware or software at the meeting. Often members of the executive are drafted for this (like shooting fish in a barrel). For awhile we followed a list of topics. But we've kind of run out of ideas. Anyway, for the July general meeting, John Towler had agreed to discuss the use of alternate desktops such as Neodesk and Hotwire, that is, if nobody else wanted to step in. Gordon felt that maybe we should wait until someone obtained a copy of Neodesk 4.0 (due sometime soon) before doing a review. As it happened, I had just bought an old Atari 400 computer at Value Village. I suggested that I use it to demonstrate some of the early Atari software recently donated by Geoff Corry. John agreed to the change, so with my 400 and Geoff's 410 tape recorder and Gordon's TV we were all set to demonstrate a state-of-the-art interactive multimedia computer system circa 1979.

The more advanced technology that was to be used in the successor to the Atari 2600 game console went instead to create Atari's first computers. These computers were designed for the home market. Software would fall into four general categories: Education, Personal interest, Entertainment, Productivity. The first three categories of software could be handled through the medium of cartridges or standard tape cassettes. Only productivity software, such as word processors or spread sheets would really need the then very expensive disk drives. The earliest software released by Atari for its 400/800 computers was the Educational System. This system required a master cartridge (CXL4001) and an Atari 410 tape drive. There were fifteen course topics, of which we have only a few. Each course consists of four double sided cassettes. These courses had been prepared for Atari by Dorsett Educational Systems Inc. I brought along a world history course to demonstrate to the assembled faithful.

I inserted the cartridge, and turned on the computer. The title and some simple instructions were displayed on the screen. I put one of the cassettes into the tape player, pressed PLAY on the recorder and START on the computer. We could hear some digital information load briefly, then a voice with a mid-western accent came out of the TV's speaker. The lecture had begun. It was on the history of the later Roman empire. As the voice spoke, text was displayed on the screen. It was very much like a classroom lecture with notes written on a blackboard. Every so often, the voice would ask questions, the tape would stop and a choice of two or three answers would be displayed. Press the number corresponding to the correct answer and the tape would start again, "Right!" the lecturer would say. Press the wrong number and the computer would just "boop" at you. Some of the members really got into the demonstration and were getting the right answers every time. Assuming that my fellow members are not Byzantine scholars, I must conclude that Atari's Talk, Text and Test system is rather effective. How does it work? Well, Atari uses a stereo tape system. One channel is for normal sound and the other is for digital information. The analog sound is synchronised with the digital code.

After the tape demonstration some early Atari brochures and manuals were displayed, including a price list (costly stuff). The illustrations all emphasise home use. Even the manual for Atari BASIC showed the computer being used in a home. The Assembler/Editor cartridge was meant for the computer hobbyist, not the professional programmer. We had a collection of other cartridges that Atari had issued before 1982. These included Music Composer, Chess and some video games. Ted Skrecky tried Star Raiders for old time's sake. Ted had trouble with the joy stick (original Atari issue), accidentally nuked a star base and got shot up by the aliens. Has Ted crippled his legendary reflexes by indulging in too many role-playing games?

Finally there was a demonstration of the Atari touch tablet and Atari Artist cartridge. When the stylus presses on the tablet two resistance values are read by the Atari 400 and interpreted as if a pair of paddles was being used. The stylus is equipped with a trigger button. Atari Artist software uses a menu of icons and point-and-click selection with the stylus. One can move back and forth between the menus and the drawing screen very easily. I found it harder to draw using the touch tablet than I anticipated. So I clicked on a broad brush icon and did some finger painting. Chris Prince brought along a Koala Pad and its software cartridge. Surprise, the Koala Pad software was almost identical to Atari Artist. Apparently it was done by the same programmers. However we found that the Koala software and the Atari touch tablet are not entirely compatible.

The August general meeting was held in the upstairs meeting room of the Nellie McClung branch of the public library on Cedar Hill Road at McKenzie. It was nice to be in a well appointed room with windows for a change. There was no demonstration or special topic arranged, so after the reports from the executive we just chatted. The June/July issue of Current Notes had arrived. This magazine has gone bimonthly and our subscription has been extended to October '95. Current Notes was circulated at the meeting. Not much time to read an article, but the advertisements were interesting. John Towler circulated the financial report showing that we had $927.76 in the bank at the end of July. We received a refund for the remainder of our subscription to Atari Classics. Ted Skrecky reported that about 15 new ST disks will be added to the library. This brings the collection to 150 disks containing almost 2000 programs. Great work Ted! Our Vancouver contact, Bob Lussier, is back at the keyboard of his ST after a long absence due to ill health. Bob has kindly sent us some new and unusual files for the library. Our 8-bit library, including all the magazines and books, is in a great untidy heap in Gordon Hooper's basement. George Rose (8-bit librarian) doesn't have enough shelving in his new place. We will have to get a number of book cases before the 8-bit library can function again. John Picken

GCACE Meetings

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mentioned that he had been given a membership in the Tyne and Wear Atari User Group in recognition of his 8-bit software contributions. We have been receiving requests from other Atari clubs for copies of John's XL2 virtual computer system. Gordon Hooper brought along a few copies of his little book, "8-bits Forever". It's a collection of whimsical, humorous essays ($5.00).

XIOWhat?

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Rowland and me to spend eight or more hours getting the 12 pages put together. As a result, I ended up with several great home cooked meals, courtesy of Rowlands wife, Tania.

In those days, XIO3 was being printed and collated by the Xerox Corporation as a courtesy to former president Alan Roger. To produce copies of the masters that would run freely though their machine, Rowland and I would take them to the public library along with glue stick, white-out, scissors, etc. to produce a single copy of each page on the coin operated copier. we must have made quite a sight.

After my tenure Gord took over the newsletter and, under some pressure, he adopted a masthead designed with a primitive ST drawing program. This lasted for a year or so until I got around to taking the original and coding it into printer raphics. What I did was graph it manually at about eight times its final size and then translate the graph into Epson printer codes which could be sent "verbatim" from PaperClip. For the balance of the two years Gord and then Bob Nex (a further two years) edited XIO3, it was produced the same way, though we added other "verbatim" files for column headings and ads, mostly produced with DaisyDot III.

Chris Sherwood took over as editor following Bob and XIO3 became first an STE and then a Mega production. Again the masthead changed as he didn't have a font to match the original. In fact there was no such font--I only designed the four characters. A year and a bit brought editorship back to the current ediot. Though Gord's now using a Mega 4 and a DeskJet, the masthead is back to a true copy of its original design.

News and Rumours

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there are rumours that Spectre 3.1 is undergoing beta testing and that David is trying to make it work on the Falcon. Dave has fallen behind in responding to his customers. This has caused some concern. If he doesn't ship Spectre 3.1 soon, it may be too late.

Gribnif Software is still running as usual. They have released a major product, the Geneva multitasking system in the last twelve months and they have now released Neodesk 4.0 to complement it. This is a major revision. It has a complete new look and feel. There are shaded graphics (3D effect), windows with their own drop down menus, an enhanced dialogue system, multi coloured icons (up to 16 colours), font control, background disk copy and format. Neodesk 4.0 is compatible with all ST/TT/Falcon computers in all resolutions. A demo has been posted on the major networks. Apparently Neodesk 4.0 takes a bit of time to appreciate. It already has caused complaints and also compliments. Considering what's happening to the ST software industry, users should all be grateful that Gribnif has seen the work through. Another North American company that is still keeping on is A&D (Application and Design) Software. They publish software such as Mega Check 2, Midi Music lessons, Spelling Sentry, G-Print and so forth. They also market networking hardware and software for ST and TT systems. However one of its main products is the Universal Item Selector. It has been a very popular replacement for the built-in item selector in GEM. There are rumours that a new version, UIS 4.0, is about to be released. Finally, the popular Michtron BBS software is being revised by its author Tim Purves. He intends to release it for both the ST and systems using Windows NT.

There are still some reports of new hardware for Atari computers. An accelerator card for the Falcon called the Speed Resolution Card uses a 68030 running at 40 mhz ($143). This makes the Falcon faster than a TT. Apparently TT's are not in production any more, but they can be produced if Atari gets a pre-order of "several hundred". Otherwise to get TT performance or better, one must accelerate a Falcon or buy a Medusa. A number of firms in Germany use Atari computers for publishing. Some find it more economical to pay 8000DM for each Medusa to get higher

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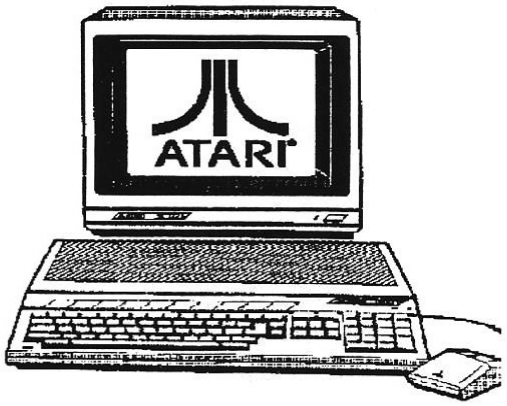
speed than to completely change their equipment and retrain their staffs. The Medusa is made to order, It is hand made by one person, one at a time. There are a couple of other hardware items. IDE type hard drives are considerably cheaper than SCSI drives. The internal drive in the Falcon is an IDE type. An IDE adapter for ST computers is now available from a company called Hard & Soft in Germany. It requires TOS 2.06 to operate. System Solutions in Britain is also rumoured to be working on an IDE interface. I understand that the serial interface on the ST tends to lose data transferred at high baud rates. The RSVE board is being produced for ST/STe's which allows loss free transmission up to 115.2K baud.

There is little new software to report, but there are a number of upgrades. While work on TOS 5 has been suspended in favour of Jaguar games, there are rumours that registered developers are receiving TOS 4.9X for beta testing. Compo is distributing Speedo GDOS 5.0 which supports Bitstream, Speedo, Postscript Typel and Truetype fonts. This brings the ST fonts into line with those commonly used on PC's and Macs. The NVDI 3.0 screen accelerator is to be released in August. NVDI also provides support for Speedo and Truetype fonts. Some games are rumoured to be coming out for the ST and Falcon. Titles are Robinson's Requiem, Ishar 3 and Utopos 2. Interest in the ST/Falcon line is still strong in Britain. The UK Atari Show was held in London. It was a relatively small exhibit. However the show was well attended and sales were brisk. Systems Solutions sold twenty thousand pounds worth of merchandise in two days. They sold all their Falcons. The latest software was on display including Neodesk 4.0. This is the second year that Best Electronics (California) has sent a representative to the show. It must pay. There were rumours that HiSoft was avoiding the show. Not so! They were present the first day but sickness of a key member forced them to close their booth early.



Perhaps we are approaching the end of the pioneering era for microcomputers. Two pioneers have died recently. Jay Miner died in June. Jay was known as one of the chief designers of the special chips that went into the Atari VCS game machine and the large scale integrated circuit chips (ANTIC, POKEY, GTIA) that created the character of the Atari 8-bit computers. Jay left Atari to make a new game machine. This evolved into the Amiga computer. In general concept, the Amiga was the successor to the Atari 8-bit series. The Atari ST was something else. It's TOS is an adaptation of Digital Research's CP/M operating system (CP/M 68K) combined with GEM. And of course Research too. In a way, the Atari Falcon computer represents the ultimate development of CP/M and GEM. Last month Gary Kildall died. He was the founder of Digital Research and the creator of CP/M.

While Atari grapples with the task of creating fifteen or so new computer games simultaneously, the investing world looks on. Hardly a day goes by without some article on video games appearing in a business periodical. The Tramiels seem to think that lateness is less dangerous than mediocrity (and they're right). They want all Jaguar games to be above average. So the release dates keep being set back. Now the first batch of new games is scheduled for September or October release. They are hoping for big sales in the holiday season and a continuation of sales momentum thereafter. In the meantime the investment analysts are studying each company involved in the new 32/64 bit game machines. They plot momentum based on the history to date. According to the firm Robertson/Stevens they expect that Atari won't make it this Christmas and that about 100 thousand Jaguars will be sold this year. Next year they expect about 700 thousand more Jaguars will be sold with possibly more than a million in the following year. They expect that rival 3DO will sell about two to five times as many units as Atari. However the biggest game machine sales will involve the PC. They expect that up to seven million PC's will be sold for game and entertainment purposes this year and twenty million next year. Perhaps Doug Skrecky is right (see July/August XIO3). A fast, compact, relatively cheap PC engineered for games might satisfy most video game players.

Atari 8-Bit Affairs

by Rowland Grant

Fine Tooned engineering got a lot of publicity on the cover of the June/July issue of Current Notes. This had the statue of liberty holding a red, white and blue stack of super cartridges instead of a torch. The stack was made up of FTe's R-Time8, Sparta DOS Elite (?) and Xpress. Mike Hohman, owner and possibly sole worker, says that he has been getting MIO boards sent to him for repair. This has prompted him to consider redesigning the MIO and to include 80 column hardware in it. When ICD originally produced the MIO board it went on to develop 80 column hardware. This was never released because Atari announced that it was going to manufacture the XEP80. A catalogue of all FTe's real and projected products has been promised.

Mike Hohman is spending most of his time developing hardware items such as the Mars-8 system. As a result he is having trouble keeping up with the normal routine of his business. This has caused him to catch some flack on internet. In a previous article I mentioned that the Mars-8 board might be connected to the parallel bus of the 800XL. Apparently not. Rather, it will plug into internal sockets. The board may not be very large. All of the software could fit into one moderate capacity Eprom. Much of the other circuitry could be handled by a few modern chips. The release of Mars-8 has been delayed again. Apparently Mike is redesigning Mars-8 further so that it can handle the 80 column hardware projected for the MIO boards. Also Mike is trying to incorporate a 65816 microprocessor. One day Mike is going to have to stop developing and get his stuff into production.

Mike Hohman has admitted that Sparta DOS 3.2G is a beta version. He certainly doesn't have time to test it himself or do any more fixes on it. One or two users have reported some trouble with 3.2G, others have reported no problems at all. At any rate the open file bug is present in earlier versions of Sparta DOS. I understand that there is a fix for this in the form of a program, SHELL.COM, that adds search path capability to Sparta DOS and checks for open files.

Atari Classics will resume publication late August or early September. Apparently about 200 subscribers have signed up so far. Unicorn has now sent out all 351 refunds to the old subscribers, and it is hoped that they will use the money to continue with the new publishers. Now that the refunds have been made, Ben Poehland has formally resigned his positions in Atari Classics and has sent on all the back issues to the new publishers in California. The name and the logo of the original AC have been transferred also. However they must still negotiate the transfer of the second class mailing permit, perhaps the most valuable asset.

The new editor of Atari Classics is Jim Hood. Jim is also president of the San Leandro Computer Club. Jim Hood is a professional graphics artist. He already publishes a hobby magazine with around 6000 subscribers. Jim feels that he can give AC sufficient attention. Jim has already secured printing and publishing facilities that will permit low cost production of Atari Classics. This means that it could survive with a small user base. Jim uses an ST system to do his publishing. The Jim, Bob Woolley and others involved in restarting AC have been criticised as being slow in assembling staff, soliciting articles and promoting circulation. However they did acknowledge our Club's subscription with a personalized postcard, so they are organised.

While we are witnessing the saving of one 8-bit Atari magazine, we may be seeing the demise of another. The June/July issue of New Atari User (No. 68) has not appeared. There were some rumours that it would be out late in July, but there is nothing so far. Persons telephoning Page 6 publishing have been getting an answering machine. Circulation of New Atari User has been dropping rapidly over the last year. The staff is down to the editor, Les Ellingham, and his family. There are rumours that Les Ellingham had fallen ill from overwork and stress. That caused the initial publication delay. Later some announcements were made that subscribers should buy software from the Page 6 mail order service so that there will be enough funds to continue publishing. I presume that the printers want some money up front, and the money has just about run out. Page 6 publishing's mail order service saved it once before. But the 8-bit user base was much larger then. I hope that Les can keep New Atari User going, but the situation looks grim.

The dwindling user base of classic Atari computers has caused others to take a cautious second look. There are rumours that Bob Puff has put the production of his R:P high speed serial/parallel interface on hold. Not only is the market small, but there are difficulties in getting small orders of certain electronic components at a profitable price. Another rumour says that Bob Puff will do a limited production run to keep his promise to his customers.

At the same time, significant software is still coming out for the 8-bit Atari. Textpro 5.20 has been released. It is shareware but the fee is nominal except for the source code. By releasing the source code Ron Riche is allowing others to continue the development of this excellent text editor and word processor. Another interesting development is BW DOS. This is a command line DOS similar to Sparta DOS, however unlike Sparta DOS it is compatible with Turbo BASIC. This DOS has been released as shareware (or freeware) by Bewesoft of Prague. Clay Halliwell has released FlickerTerm. This terminal program may not be the final version as it has no dial menu or protocols. Flicker term handles 80 columns in ANSI mode and VT100 emulation. It handles modems up to 14.4K baud. These features make it easy for an Atari 8-bit to handle MS-DOS bulletin boards. The 80 column emulation is accomplished by screen switching. This does cause the screen to flicker (hence the name), but it is tolerable on a good monitor with a bit of screen persistence.

We have received a copy of "The Complete and Essential Map for the XL/XE". Written by Andrew Thompson and published by TWAUG Publishing, this is the successor to Ian Chadwick's "Mapping The Atari" which has been long out of print. The Complete and Essential Map is in two volumes. The first volume is the Map itself. All the essential addresses are listed and explained. Many are accompanied by code examples. The second volume contains the appendices. They treat just about everything: graphics, sound, BASIC (including Turbo BASIC), Assembly language, the operating system source listing, hardware and peripherals, a glossary and program listings and much more. The books are well turned out with spiral bindings. I understand that the final copy was done using TextPro and Daisy Dot. This two-volume set represents an enormous amount of work by the author and the publishers. It should be on the bookshelves of all Atari 8-bit programmers. Others think so too. David Ewens of TWAUG reports that the book is selling well, and that they are receiving compliments from purchasers. I hope that we can do a thorough review of the book soon. The Complete and Essential Map can be obtained directly from the publishers: TWAUG, P.O. Box No.8, Wallsend, Tyne and Wear, England NE28 6DQ. The price is 16 pounds sterling plus 2.50 pounds for surface mail.

New additions to the library include Cardstax 2.0. This is a form of hypercard on the 8-bit Atari by David Paterson of the Montreal Atari Club. This program comes to us via Ed Hall in Yellowknife. From NWPAC we have received Pantheon 2.0, a universal picture viewer and printer by Clay Halliwell. The DACE disk of the month for August includes Daisy Dot Pal. This prints Daisy Dot 3 files to the screen so you can check the appearance before printing on paper. Also on the disk are Flicker Term and a tetris type game called Wall. From DACE we have received a disk of the month issued by the San Leandro Computer Club. Among other things it contains Bunny Busters, a shooting gallery game, except that the targets shoot back (diagonal shots too). The disk accompanying Twaug issue 10 contains a number of interesting games and utilities including a fast version of Text Tidier. The Twaug disk and the latest Ol' Hackers newsletter (always a good read) have been posted on Pothole BBS, check them out.

NOTICE

The Garden City Atari Executive members require no physical fitness program as everyone gets enough exercise by:

- Jumping to conclusions
- Flapping their jaws
- Chasing rainbows
- Flying off the handle
- Dodging responsibility
- Pushing their luck